

## Technical Sessions

Technical session will be made in oral sessions. All presentation is oral and limited up to 20 minutes including about 5 minutes discussion.

### Wednesday, June 17, 2009

#### RoomA (Conference room 301B)

##### 10:50-12:10 A-1 Vehicle [Vibration/ Comfort]

Chair : *Yasufumi Suzuki (Railway Technical Research Institute)*

*Masakazu Adachi (National Traffic Safety and Environment Laboratory)*

358100 : PREVENTION OF CARBODY VIBRATION INDUCED BY IMBALANCED WHEELSETS WITH DISPLACEMENT-DEPENDENT RUBBER BUSH

*/ Takahiro Tomioka, Tadao Takigami, Atsushi Fukuyama and Takashi Suzuki*

354216 : STUDY ON DYNAMIC SAFETY OF MULTIPLE-AXLE HEAVY HAUL FREIGHT CAR ON CURVED TRACK

*/ Huanyun Dai*

354303 : IMPROVING THE COMFORT OF JR CENTRAL'S THIRD GENERATION SERIES 313 CAR

*/ Susumu Yamada, Koichi Nishimura and Yusuke Tanaka*

358129 : FUNDAMENTAL STUDY ON THE EFFECT OF HIGH FREQUENCY VIBRATION ON RIDE COMFORT

*/ Chizuru Nakagawa, Ryohei Shimamune, Yufuko Abe, Erimitsu Suzuki and Ken Watanabe*

#### RoomB (Conference room 301A)

##### 10:50-12:10 B-1 Catenary

Chair : *Ryo Takagi (Kogakuin University)*

*Hitoshi Tsunashima (Nihon University)*

359829 : ELECTRICAL SLIDING WEAR OF COPPER-BASED CONTACT WIRE MATERIALS FOR ELECTRIC RAILWAY / *Po Kee Wong, Chi Tat Kwok, Hau Chung Man and Fai Tsun Cheng*

361909 : INVESTIGATION OF ARC BREAKING PHENOMENON OF THE CONTACT WIRE AT THE AIR SECTION IN D.C. RAILWAY SYSTEM / *Hitoshi Hayashiya*

362218 : RESULTS OF CURRENT COLLECTION TESTES OF HIGH-HEAT RADIATION CATENARY

*/ Kentaro Nishi, Tadashi Yoshida, Takeshi Ishii, Ichiro Ideno, Takuya Kuraoka, Shunnichi Kusumi and Hiroyuki Hayashi*

360429 : INTEGRATED SIMULATION BETWEEN FLEXIBLE BODY OF CATENARY AND ACTIVE CONTROL PANTOGRAPH FOR CONTACT FORCE VARIATION CONTROL

*/ Mohd Azman Abdullah, Yohei Michitsuji, Masao Nagai and Naoki Miyajima*

#### RoomC (Conference room 302B)

##### 10:50-11:50 C-1 Bogie [Curving performance]

Chair : *T.X Mei (Salford University)*

*Katsuya Tanifuji (Niigata University)*

362401 : ANALYSIS ON CURVING PERFORMANCE AND HUNTING STABILITY OF ACTIVE-BOGIE-STEERING-TRUCK WITH VARIOUS WHEEL TREADS

*/ Yohei Michitsuji, Akira Matsumoto, Yoshihiro Suda, Yasuhiro Sato, Hiroyuki Ohno, Masakazu Adachi, Masuhisa Tanimoto, Yasushi Kishimoto, Yoshi Sato and Takuji Nakai*

356056 : A NEW RADIAL BOGIE WITH INDEPENDENTLY ROTATING WHEELS

*/ Maoru Chi, Yiping Jiang, Weihua Zhang, Jing Zeng, Xuesong Jin and Minhao Zhu*

352539 : AN EXPERIMENTAL STUDY OF ASSIST STEERING SYSTEM FOR RAILWAY VEHICLE

*/ Shogo Kamoshita, Makoto Ishige, Yasuhiro Umehara and Katsuya Tanifuji*

**RoomD (Conference room 302A)**

**10:50-12:10 D-1 Infrastructure 1**

Chair : *Zili Li (Delft University of Technology)*

*Kazuhiro Koro (Niigata University)*

360713 : VEHICLE RUNNING QUALITY DURING EARTHQUAKE ON RAILWAY VIADUCTS

*/ Masamichi Sogabe, Kazuhiro Harada and Tsutomu Watanabe*

354308 : TRAIN-RUNNING QUALITY DURING EARTHQUAKE AND ITS IMPROVEMENT FOR RAILWAY LONG SPAN

*BRIDGE / Masakazu Uno, Masamichi Sogabe, Tsutomu Watanabe and Makoto Kanamori*

351491 : NUMERICAL CALCULATION METHOD FOR PREDICTION OF GROUND-BORNE VIBRATION NEAR

*SUBWAY TUNNEL / Masaru Furuta, Kiwamu Tsuno and Kazuhisa Abe*

360411 : 3-D ANALYSIS OF THE INFLUENCE OF A PILE ON UNDERGROUND INDUCED VIBRATIONS USING THE

*BOUNDARY ELEMENT METHOD / Takahiro Saitoh and Sohichi Hirose*

**RoomA (Conference room 301B)**

**13:00-14:00 A-2 Bogie [Running stability]**

Chair : *Akira Matsumoto (National Traffic Safety and Environment Laboratory)*

*Yohei Michitsuji (Ibaraki University)*

360766 : EXPERIMENT ON STABILIZATION OF HUNTING MOTION BY GYROSCOPIC DAMPER

*/ Kentaro Nishimura, Hirokazu Okamoto, Shihpin Lin, Hiroshi Yabuno and Yoshihiro Suda*

360397 : POTENTIAL OF ACTIVE-STEERING BOGIE FOR REDUCING LATERAL AXLE LOAD CAUSED AT WORN

*WELDED JOINTS OF OUTER RAIL IN CURVED TRACK / Tatsuya Iizuka, Katsuya Tanifuji and Hitoshi Soma*

349928 : INTELLIGENT SENSING AND DATA PROCESSING – FROM BOGIE VIBRATIONS TO TRAIN SPEED

*/ TX Mei and H Li*

**RoomB (Conference room 301A)**

**13:00-14:20 B-2 Power**

Chair : *Takafumi Koseki (The University of Tokyo)*

*Hitoshi Hayashiya (East Japan Railway Company)*

362250 : DEVELOPMENT OF DC GROUND FAULT RELAY LESS AUXILIARY ENERGIZING SOURCE

*/ Masami Hino and Akira Horiguchi*

353926 : RAILWAY STATIC POWER CONDITIONER IN SECTIONING POST

*/ Akihiro Koyanagi, Masahiko Okai and Shinzo Noguchi*

362153 : RE-DESIGNING OF THE POWER FEEDING SYSTEMS FOR THE IMPROVEMENT OF DC ELECTRIC

*RAILWAYS / Ryo Takagi*

360458 : A MICROSCOPIC OPERATING POINT ANALYSIS OF A NON-LINEAR MACROSCOPIC ADHESION CONTROL

*/ Yutaka Tsukinokizawa, Takafumi Koseki, Hideto Negoro and Akihiro Murahashi*

**RoomC (Conference room 302B)**

**13:00-14:20 C-2 Customer Environment and Service**

Chair : *Daisuke Yamaguchi (The University of Tokyo)*

*Hidehisa Yoshida (National Defense Academy)*

358168 : DEVELOPMENT OF TRAIN-DRAFT-COOLING POWER CONVERTERS FOR THE SHINKANSEN HIGH-SPEED

*TRAIN / Masayuki Ueno, Takafumi Fukushima and Kenji Sato*

359356 : USING CURTAIN SENSORS TO SUPERVISE PASSENGERS ON PLATFORM

*/ Tetsuya Harada, Masato Arai, Kazuhiro Miyazaki and Hiroki Arai*

354337 : DEVELOPMENT OF THE SYSTEM WHICH PREVENTS MISTAKE IN OPERATION OF THE TRAIN DOOR

*/ Hayato Nakamura and Junta Inoue*

359031 : CUSTOMER SATISFACTION WITH TRAIN SCHEDULES

*/ Akiko Murakoshi, Taketoshi Kunimatsu and Ayano Saito*

**RoomD (Conference room 302A)**

**13:00-14:20 D-2 Infrastructure 2**

Chair : *Makoto Ishida (Railway Technical Research Institute)*

*Kazuhiro Koro (Niigata University)*

352225 : THE DEVELOPMENT OF MODELS FOR HIGH SPEED RAILWAY TRACK DYNAMICS

*/ I. I. Ivanchenko and S. N. Shapovalov*

353912 : 3-D FE SIMULATION OF CYCLIC LOADING TESTES OF RAILWAY BALLASTED TRACK USING

SUBLOADING SURFACE ELASTOPLASTIC MODEL / *Kazuhiro Koro, Yuta Fukutsu and Kazuhisa Abe*

349068 : AN INVESTIGATION ON THE DESIRED PROPERTIES OF FRICTION MODIFIERS FOR SLIPPERY RAILS

*/ Zili Li and Oscar Arias-Cuevas*

352559 : PLANNING RAIL GRINDING USING CRACK GROWTH PREDICTIONS / *Paul Hyde and David I Fletcher*

**RoomA (Conference room 301B)**

**14:40-16:00 A-3 Bogie [Tilting]**

Chair : *Hidehisa Yoshida (National Defense Academy)*

*Hitoshi Soma (Meijo University)*

350081 : DYNAMIC CURVING SIMULATION OF TILTING TRAIN / *Jing Zeng and Ren Lu*

355820 : HIGH-SPEED RUNNING OF TILTING VEHICLE USING AIR SPRINGS ON CURVED SECTION OVERLAPPED

WITH VERTICAL CURVE / *Masahiro Omokawa, Mitsuru Saito, Katsuya Tanifuji, Hitoshi Soma and Takumi Ishii*

356566 : THE BODY INCLINING SYSTEM OF THE SERIES N700 SHINKANSEN / *Yasuki Nakakura and Kosuke Hayakawa*

354345 : INTEGRATED TILT AND ACTIVE LATERAL SECONDARY SUSPENSION CONTROL

*/ Ronghui Zhou, Argyrios Zolotas and Roger Goodall*

**RoomB (Conference room 301A)**

**14:40-15:40 B-3 Electric & Energy**

Chair : *Takeshi Mizuma (National Traffic Safety and Environment Laboratory)*

*Yohei Michitsuji (Ibaraki University)*

354141 : DEVELOPMENT OF SOFTWARE DEFINED TRAIN RADIO FOR CONVENTIONAL LINES

*/ Takashi Mori, Noriyuki Washimi, Takashi Kuroda and Takayoshi Nobuhara*

360090 : RESEARCH ON THE DYNAMIC PERFORMANCE OF LIGHT RAIL VEHICLE WITH LINEAR INDUCTION

MOTOR BOGIE / *Pingbo Wu, Ren Luo, Yan Hu and Jing Zeng*

347087 : INNOVATIVE ENERGY SAVING SOLUTIONS FOR RAILWAY SYSTEM / *Uwe Henning, Mads Bergendorff,*

*Claudio Spalvieri, Laurent Nicod, Carsten Struve, Guiseppe Giannini and Roland Nolte*

**RoomC (Conference room 302B)**

**14:40-16:00 C-3 Safety [Derailment]**

Chair : *Hiroaki Nagura (Sumitomo Metal Industries, LTD)*

*Hitoshi Tsunashima (Nihon University)*

353750 : EXPERIMENTS ON DERAILMENT OF A HIGH SPEED TRAIN USING A SCALED TRAIN MODEL

*/ Fumihiko Suzuki and Koichi Sasaki*

358493 : WHEEL RAIL LATERAL IMPACT AND DERAILMENT SAFETY ASSESSMENT / *Qinghua Guan and Jing Zeng*

360497 : STUDY ON DETECTION OF SIGNS OF WHEELCLIMB DERAILMENT FOR RAILWAY VEHICLES

*/ Chiehjen Hung, Yoshihiro Suda, Wenjun Wang, Takayoshi Yamashita, Masato Morikawa, Takashi Kunimi and Tetsuya Kawanabe*

362681 : DYNAMICS SIMULATION OF SHINKANSEN CARS IN SESMIC MOTION DURING THE NIIGATAKEN

CHUETSU EARTHQUAKE / *Takefumi Miyamoto, Masamichi Sogabe and Yoshitaka Murono*

**RoomD (Conference room 302A)**

**14:40-16:00 D-3 Boundary Problem**

Chair : *Yoshiaki Terumichi (Sophia University)*

*Kiwamu Tsuno (Railway Technical Research Institute)*

347384 : RESEARCH ON COUPLING INTERACTION BETWEEN HIGH-SPEED TRAIN AND AIR

*/ Haiquan Bi and Weihua Zhang*

353967 : A BASIC STUDY ON COUNTERMEASURE AGAINST UNSTEADY AERODYNAMIC FORCE ACTING ON TRAIN RUNNING INSIDE TUNNEL USING AIR BLOWING / *Masahiro Suzuki, Koji Nakade and Kenji Okada*

360769 : MEASUREMENT OF AIR VELOCITY AND PRESSURE DISTRIBUTIONS AROUND HIGH-SPEED TRAINS ON BOARD AND ON THE GROUND / *Yutaka Sakuma, Masahiro Suzuki, Atsushi Ido and Hiroshi Kajiyama*

356221 : PREDICTION FOR WHEEL/RAIL IMPACT NOISE IN CHINESE SPEED-RAISED RAILWAY

*/ Yang Xinwen, Zhai Wanming and Yang Jizhong*

**RoomA (Conference room 301B)**

**16:20-17:40 A-4 Safety [Vehicle]**

Chair : *Takahiro Saitoh (University of Fukui)*

*Takefumi Miyamoto (Railway Technical Research Institute)*

360682 : RESEARCH ON CRASHWORTHINESS OF TWO-LAYER THIN-WALLED STRUCTURES

*/ XIAO Shoune, Yang Guangwu, SHAN Qiyu and CHEN Hanzhen*

354224 : MECHANISM OF CAR BODY CHATTER ANALYSIS ON HEAVY HAUL FREIGHT CAR

*/ Hao Gao and Huan-yun Dai*

360545 : ANALYTICAL STUDY OF THE MECHANISM OF WHEEL LOAD VARIATION ON A TWO-AXLE BOGIE

*/ Masahito Adachi, Yoshiaki Terumichi, Satoshi Hara, Yoshihiro Suda and Kiyoshi Sogabe*

359753 : DEVELOPMENT OF PLATFORM DETECTION SYSTEM USING ULTRASONIC SENSOR

*/ Tomoki Wada, Keisuke Ishii, Katsuyuki Muraki and Shigeo Matsumoto*

**RoomB (Conference room 301A)**

**16:20-17:40 B-4 Safety [Signal]**

Chair: *Uwe Henning (Siemens AG)*

*Hideo Nakamura (Nihon University)*

354567 : THE ARCHITECTURE OF GNSS LOCAL ELEMENTS IN RAILWAY SAFETY RELATED APPLICATIONS

*/ Taufer Jan and Bazant Lubor*

351291 : GALILEO SAFETY-OF-LIFE SERVICE UTILIZATION FOR RAILWAY NON-SAFETY AND SAFETY CRITICAL APPLICATIONS / *Hynek Mocek, Aleš Filip, Václav Maixner and Lubor Bažant*

354018 : DEVELOPMENT OF A TRAIN APPROACH ALARM SYSTEM WITH GPS-LINKED MOBILE PHONES

*/ Atsushi Mizoguchi and Junta Inoue*

360188 : RISK MANAGEMENT ON RAILWAY SYSTEM / *Ya-dong Zhang, Jin Guo, Yuan-zhe Zhao and Nv-e Xiao*

**RoomC (Conference room 302B)**

**16:20-17:40 C-4 Safety [Contact/ Wear]**

Chair : *Hiroyuki Sugiyama (Tokyo University of Science)*

*Masakazu Adachi (National Traffic Safety and Environment Laboratory)*

352894 : STUDY ON ACTUAL WHEEL/RAIL CONTACT GEOMETRY FOR TIGHT CURVING : COMPARISON BETWEEN EXPERIMENTS AND CALCULATIONS / *Yoshihiro Suda, Minoru Nishina, Hisanao Komine,*

*Shihpin Lin, Takashi Tsuji, Takefumi Miyamoto, Hisayo Doi, Hua Chen, Hiroyuki Sugiyama and Yoshimitsu Tanii*

347101 : PROPAGATION OF SUB-SURFACE CRACKS IN RAILWAY WHEELS FOR WEAR-INDUCED CONFORMAL CONTACTS / *Mario Guagliano, Massimiliano Pau and Bruno Leban*

357828 : EFFECT OF TRAFFIC ON CRACK INITIATION IN RAILS

*/ Gordana Vasić, Francis J. Franklin, David I. Fletcher and Ajay Kapoor*

348160 : ANALYSIS OF CAUSES TO ABNORMAL WEAR OF WHEEL FLANGES FOR QINGHAI-TIBET LINE PASSENGER CARS AND MEASURES FOR IMPROVEMENT / *Hongyou Liu and Dalian Yu*

## Thursday, June 18, 2009

### RoomA (Conference room 301B)

#### 10:30-11:50 A-5 Vehicle [Active suspension]

Chair : *Yoshihiro Suda (The University of Tokyo)*

*Hong Lun Zhao (Tongji University)*

358174 : THE DEVELOPMENT OF AN ACTIVE SUSPENSION SYSTEM WITH EMA FOR RAILWAY VEHICLES

*/ Osamu Goto, Shoji Negoro and Satoshi Koizumi*

353620 : RIDE COMFORT IMPROVEMENTS IN A HIGH-SPEED TRAIN WITH ACTIVE SECONDARY SUSPENSION

*/ Anneli M. Orvnäs, Sebastian Stichel and Rickard Persson*

360841 : ACTIVE CONTROL OF AIRSPRING SECONDARY SUSPENSION TO IMPROVE RIDE COMFORT IN PRESENCE OF RANDOM TRACK IRREGULARITY / *Stefano Alfi, Stefano Bruni and Alan Facchinetti*

362151 : ACTIVE SECONDARY SUSPENSIONS FOR RAILWAYS USING INTER-VEHICLE ACTUATORS

*/ Roger Goodall and Guy Speedie*

### RoomB (Conference room 301A)

#### 10:30-11:30 B-5 Traffic Planning

Chair : *Francis James Franklin (Newcastle university)*

*Hiroyuki Ohno (National Traffic Safety and Environment Laboratory)*

360714 : TRAIN TIMETABLING ALGORITHM BASED ON PASSENGERS' DEMANDS

*/ Taketoshi Kunimatsu, Chikara Hirai and Norio Tomii*

362148 : BICRITERIA FREIGHT TRAINS OPTIMAL DISPATCHING / *Boris Davydov and Vadim Hopkalo*

360594 : PASSENGER FLOW ANALYSIS FOR TRAIN RESCHEDULING AND ITS EVALUTION

*/ Shunichi Tanaka, Kazumasa Kumazawa and Takafumi Koseki*

### RoomC (Conference room 302B)

#### 10:30-11:30 C-5 Environment & Energy 1

Chair : *Kazuhiisa Abe (Niigata University)*

*Hideo Nakamura (Nihon University)*

360802 : DEVELOPMENT OF A SYSTEM TO REDUCE INTERIOR NOISE OF RAILWAY VEHICLE

*/ Katsuya Yamamoto, Nobuo Tanaka, and Mineyuki Asahina*

359911 : REDUCTION OF PANTOGRAPH NOISE OF HIGH-SPEED TRAINS / *Takeshi Kurita, Masaaki Hara,*

*Haruo Yamada, Yuusuke Wakabayashi, Fumio Mizushima, Hitoshi Satoh and Toshio Shikama*

358164 : ENERGY-SAVING TECHNOLOGIES OF THE SERIES N700 / *Hajime Ito, Shuji Nakamura and Tomoyuki Minami*

### RoomD (Conference room 302A)

#### 10:30-11:30 D-5 MAGLEV 1

Chair : *Yoshiyasu Hagiwara (Central Japan Railway Company)*

*Hidehisa Yoshida (National Defense Academy)*

360679 : MECHANICAL VIBRATION EXPERIMENT OF SUPERCONDUCTING MAGNET

*/ Koichiro Waki, Hiroshi Seino and Ken Nagashima*

343991 : HIGHER SPEED TRIAL OF HSST / *Minoru Morita and Hidehiro Nagano*

349906 : PROSPECTS AND LIMITATIONS OF HIGH SPEED TRANSPORT : THE MAGLEV CASE / *Johannes Kluehspies*

## Friday, June 19, 2009

### RoomA (Conference room 301B)

#### 10:10-11:30 A-6 Vehicle [Vehicle design]

Chair : *Takahiro Tomioka (Railway Technical Research Institute)*

*Yoshitomo Watanabe (Nippon Sharyo, Ltd.)*

352646 : STATIC TEST AND VALIDATION RESULTS FOR CTRL-DS VEHICLE FOR UK

*/ Masataka Hidai, Mikio Iogawa, Takao Watanabe and Kenjiro Goda*

354324 : INTRODUCTION OF A RAILWAY DIESEL CAR TYPE RAIL TRANSPORT CAR

*/ Masayuki Ohara, Sadayuki Kohori, Hiroshi Shinmura and Junji Tsuboi*

365879 : EXPERIMENTAL APPROACH FOR EVALUATION OF ANISOTROPY IN EXTRUDED UNDERFRAME PART OF HIGH SPEED TRAIN / *C.H. Lee, J.C. Park, S.Y. Lee, J.S. Cho, J.Y. Song and J.H. Kim*

360579 : ANALYSIS ON HIGH FREQUENCY VIBRATION CHARACTERISTICS OF THE NEXT GENERATION

SHINKANSEN SEATS / *Shigeki Fukui, Yuta Ichikura, Masao Nagai, Yohei Michitsuji, Seiichi Watanabe, Katsufumi Hashimoto, Yoshihiko Yokoyama, Takahiro Tomioka and Ryohei Shimamune*

### RoomB (Conference room 301A)

#### 10:10-11:10 B-6 Signal 1

Chair : *Yuji Hirao (Nagaoka University of Tech.)*

*Takafumi Koseki (The University of Tokyo)*

360785 : EVALUATION OF CDMA-QAM RAIL TRANSMISSION DEVICE FOR RAILWAY SIGNALING

*/ Hiroshi Mochizuki, Sei Takahashi, Hideo Nakamura, Satoshi Nishida and Ryo Ishikawa*

360138 : MODELING RAILWAY SIGNALLING CONTROL SOFTWARE WITH OBJECT-BASED ARCHITECTURE

*/ Xinhong Hei, Weigang Ma, Lei Wang, Sei Takahashi and Hideo Nakamura*

360176 : THE EXTENDED PETRI MODEL FOR THE DISPATCHING SYSTEM OF THE INDUSTRIAL RAILWAY

*/ Jin Guo and Pei-yan Yun*

### RoomC (Conference room 302B)

#### 10:10-11:10 C-6 Condition Monitoring 1

Chair : *Roger Goodall (Loughborough University)*

*Hitoshi Tsunashima (Nihon University)*

356776 : CONDITION MONITORING FOR SHINKANSEN BOGIES BASED ON VIBRATION ANALYSIS

*/ Takuya Oba, Koichi Yamada, Hitoshi Soma and Katsuya Tanifuji*

355939 : STATE ESTIMATION OF RAILWAY VEHICLES USING MULTIPLE MODEL APPROACH

*/ Hirotaka Mori, Hitoshi Tsunashima and Yoshitaka Marumo*

354086 : DEVELOPMENT OF AUTO MATIC WHEEL CONDITIONS MONITORING SYSTEM

*/ Nobuaki Itonaga and Hidemi Yano*

### RoomD (Conference room 302A)

#### 10:10-11:30 D-6 Environment & Energy 2

Chair : *Chang Hui (RIST)*

*Yoshiaki Terumichi (Sophia University)*

347823 : ESTIMATION OF STRUCTURE-BORNE NOISE REDUCTION EFFECT OF STEEL RAILWAY BRIDGE EQUIPPED WITH FLOATING LADDER TRACK AND FLOATING REINFORCED-CONCRETE DECK

*/ Tsutomu Watanabe, Masamichi Sogabe, Kiyoshi Asanuma and Hajime Wakui*

359904 : DEVELOPMENT OF TRANSMITTING BOUNDARY FOR PERIODICALLY SUPPORTED RAILS

*/ Kazuhisa Abe, Shingo Fujishita and Kazuhiro Koro*

360432 : GRASP THE ACTUAL CONDITIONS OF REGENERATIVE BRAKE AND OPTIMIZE THE PARTIAL CANCELLATION PATTERN OF REGENERATIVE CONTROL / *Norihiro Kani and Takayoshi Yamashita*

360659 : DESIGN OF A RUN-CURVE FOR ENERGY SAVING OPERATION IN A MODERN DC-ELECTRIFICATION -EFFICIENCY ASSUMING PERFECT REGENERATIVE BRAKING- / *Takashi Noda and Takafumi Koseki*

**RoomA (Conference room 301B)**

**11:40-13:00 A-7 Bogie [Running safety]**

Chair : *Jing Zeng (Southwest Jiaotong University)*

*Yohei Michitsuji (Ibaraki University)*

362140 : DEVELOPMENT OF SUBWAY BOGIE TO REDUCE WHEEL LOAD VARIATION

*/ Tomohisa Ogino, Makoto Shimizu, Yusuke Shimomura, Yoshiyuki Shimokawa, Yoshi Sato and Takuji Nakai*

362142 : TOKYO METRO NEWLY BOGIE TRUCK DESIGN

*/ Yusuke Shimomura, Tomohisa Ogino, Makoto Shimizu, Yoshiyuki Shimokawa, Yoshi Sato and Takuji Nakai*

359473 : STUDY ON RUNNING SAFETY WITH GAUGE WIDENING

*/ Masakazu Adachi, Yasuhiro Sato, Hiroyuki Ohno, Akira Matsumoto, Atsushi Iwamoto and Minoru Kobayashi*

354363 : ACCELERATED LIFE TEST DESIGN FOR VEHICLE BOGIE FRAME BY SIMULATION METHODS

*/ Jianbin Wang and Pingbo Wu*

**RoomB (Conference room 301A)**

**11:40-12:40 B-7 Signal 2**

Chair : *Xinhong Hei (Xi'an University of Technology)*

*Hiroshi Mochizuki (Nihon University)*

358170 : THE NEW ATC SYSTEM OF THE TOKAIDO SHINKANSEN

*/ Masayuki Ueno, Hidemitsu Tanaka, Yoshiya Watanabe and Toshiaki Takami*

353029 : IMPROVEMENT OF CONFIGURATION DATA RELIABILITY BY ERROR-PROOFING IN RAILWAY SIGNALLING SYSTEMS

*/ Toshiyuki Shimazoe, Hideto Ishikawa, Yoshiyuki Hata, Tsuyoshi Takei, Haruhiko Ezaki and Kenji Tanaka*

360216 : RESEARCH ON SAFETY-RELATED COMMUNICATION OF RAILWAY AUTOMATIC BLOCK BETWEEN RAILWAY STATIONS SYSTEM / *Pei-yan Yun, Jin Guo and Xiao-dong Wang*

**RoomC (Conference room 302B)**

**11:40-13:00 C-7 Condition Monitoring 2**

Chair : *Yoshiaki Terumichi (Sophia University)*

*Yoshitaka Marumo (Nihon University)*

355005 : INERTIAL MEASUREMENT PROCESSING TECHNIQUES FOR TRACK CONDITION MONITORING ON SHINKANSEN COMMERCIAL TRAINS / *Yasukuni Naganuma, Mikihito Kobayashi and Takayuki Okumura*

355532 : ESTIMATION OF GAUGE IRREGULARITY USING INDEPENDENT COMPONENT ANALYSIS

*/ Hiroki Nakamura and Kimihiko Nakano*

345303 : CONDITION MONITORING OF RAILWAY TRACK USING IN-SERVICE VEHICLE

*/ Hitoshi Tsunashima, Takashi Kojima, Yoshitaka Marumo, Akira Matsumoto and Takeshi Mizuma*

361235 : DRIVER' S POSTURE MONITORING BY INFRARED LASER RANGING SENSOR

*/ Jun Yoshinaga and Takeshi Mizuma*

**RoomD (Conference room 302A)**

**11:40-12:40 D-7 MAGLEV 2**

Chair : *Erimitsu Suzuki (Railway Technical Research Institute)*

*Shuichiro Ota (Central Japan Railway Company)*

347118 : EMS SYSTEMS : OPTIMISED SENSOR CONFIGURATIONS FOR CONTROL AND SENSOR FAULT TOLERANCE / *Konstantinos Michail, Argyrios Zolotas and Roger Goodall*

353183 : APPLICATION OF SEGMENTAL PRECAST DECKS TO THE MAGLEV GUIDEWAY GIRDER SYSTEM FOR CURVED ROUTES IN URBAN AREA / *Byeong Moo Jin, In G. Kim, Y. Lee, H. W. Ma, H. C. Oh and Young J. Kim*

360262 : STRESS EVALUATION OF THE PLG GROUND COIL WITH GFRP FASTENING DEVICES

*/ Hitoshi Matsue, Masayuki Aiba and Masao Suzuki*

**RoomA (Conference room 301B)**

**13:40-15:00 A-8 Vehicle [Aerodynamics]**

Chair : *Katsuya Tanifuji (Niigata University)*

*Yohei Michitsuji (Ibaraki University)*

360104 : DEVELOPMENT OF A MODEL RUNNING FACILITY FOR STUDY ON UNDER-FLOOR FLOW

*/ Atsushi Ido and Shuya Yoshioka*

341259 : NUMERICAL SIMULATION OF LATERAL VIBRATION OF HIGH-SPEED TRAIN INDUCED BY

AERODYNAMIC FORCES IN TUNNELS / *Ji Zhong Yang, Wanming Zhai, Haiquan Bi and Xinwen Yang*

354146 : FULL-SCALE EXPERIMENT ON THE BEHAVIOR OF A RAILWAY VEHICLE BEING SUBJECTED TO

LATERAL FORCE / *Yu Hibino, Takayuki Shimomura and Katsuya Tanifuji*

360303 : EFFECT OF CROSSWIND ON HIGH SPEED RAILWAY VEHICLE RUNNING SAFETY

*/ Xinbiao Xiao, Xuesong Jin, Zefeng Wen and Minhao Zhu*

**RoomB (Conference room 301A)**

**13:40-15:00 B-8 Human Factor**

Chair : *Hisato Ohno (Railway Technical Research Institute)*

*Hidehisa Yoshida (National Defense Academy)*

360225 : DEVELOPMENT AND UTILIZATION OF EDUCATIONAL MATERIALS FOR HUMAN FACTORS

*/ Tomoko Horishita*

360580 : ACCURACY OF SUBJECTIVE RISK OF OVERRUN BY TRAIN DRIVERS AND ITS AGE DIFFERENCE

*/ Masayoshi Shigemori*

356428 : ANALYSIS OF BRAKING BEHAVIOR FOR TRAIN DRIVER' S TO DETECT UNUSUAL DRIVING

*/ Yasushi Hasegawa, Yoshitaka Marumo, Hitoshi Tsunashima and Takashi Kojima*

360736 : SENSORY EVALUATION OF RIDE ON RAILWAY VEHICLE USING MOTION SIMULATOR

*/ Daisuke Yamaguchi, Shoichiro Takehara, Koichi Sasaki, Yoshihiro Suda and Takaaki Koga*

**RoomC (Conference room 302B)**

**13:40-14:40 C-8 Condition Monitoring 3**

Chair : *Yoshiaki Terumichi (Sophia University)*

*Kimihiko Nakano (The University of Tokyo)*

356924 : THE FATIGUE LIFE AND RELIABILITY PREDICTION OF HIGH-SPEED TRAIN BODY STRUCTURE BASED ON ACCELERATION EXCITING / *Honglun Zhao, Shefeng Wang and Zhenhong Shen*

360469 : IDENTIFICATION OF VIBRATION CHARACTERISTICS OF OPEN DECK BRIDGES USING THE PASSING

TRAIN LOADS / *Kodai Matsuoka, Kiyoyuki Kaito, Koichi Sugisaki and Tsutomu Watanabe*

360369 : A SIMPLE IDENTIFICATION METHOD FOR MEMBER VIBRATION PROPERTIES OF RAILWAY VIADUCTS

*/ Kazuhiro Harada, Tsutomu Watanabe, Masamichi Sogabe, Yukihiko Tanimura, Kiyoyuki Kaito and Kouichi Sugisaki*

**RoomD (Conference room 302A)**

**13:40-15:00 D-8 MAGLEV 3**

Chair : *Masao Nagai (Tokyo University of Agriculture & Technology)*

*Byeong Moo Jin (Daewoo E & C, Co. Ltd)*

360311 : STUDY OF SUPERCONDUCTING MAGNETIC BEARING USING LIQUID NITROGEN COOLED HTS-BULK-SUPERCONDUCTOR APPLICABLE TO FLYWHEEL ENERGY-STORAGE SYSTEM FOR RAILWAY

*/ Hiroshi Seino and Ken Nagashima*

360011 : DEVELOPMENT OF SUPERCONDUCTING MAGNETS WITH CURRENT LEADS WITHOUT GAS COOLING

*/ Masafumi Ogata, Ken Nagashima, Yoshiki Miyazaki and Masaru Iwamatsu*

360308 : PRELIMINARY STUDY OF HIGH-TEMPERATURE SUPERCONDUCTING MAGNETS USING 2G WIRES FOR MAGLEV TRAIN / *Ken Nagashima, Masafumi Ogata, Yoshiki Miyazaki, Takashi Sasakawa and Masaru Iwamatsu*

355984 : A STUDY OF MAGLEV VEHICLE DYNAMICS USING A REDUCED-SCALE VEHICLE MODEL EXPERIMENT APPARATUS / *Erimitsu Suzuki, Ken Watanabe, Hironori Hoshino, Takenori Yonezu and Masao Nagai*